

WHAT IS CLAIMED IS:

1. A method, comprising:
 - forming an optical filter assembly having an optical characteristic that varies according to a parameter thereof;
 - using an optical device to form information about said optical characteristic on the optical filter, and to obtain information which is individual for each specific optical filter, said optical device having a first aperture; and
 - determining a second aperture of a light beam which will be used to illuminate the optical filter;
 - determining differences between said first and second apertures;
 - using said information which is individual for each specific optical filter and information about said differences to modify a profile used to move said optical filter.
2. A method as in claim 1, wherein said profile used to move said optical filter is a profile that drives a motor.
3. A method as in claim 1, wherein said using an optical device comprises using a spectrophotometer to scan a region of the filter to form a set of data indicating transmittances as a function of wavelength.

4. A method as in claim 3, further comprising analyzing said data to find a specified point in a slope curve formed by said data, said specified point forming said information which is individual to each specific optical filter.

5. A method as in claim 4, wherein said specified point in said slope curve is at 50 percent of the cut on point.

6. A method as in claim 4, wherein said specified point in said slope curve is a value that allows any color at any point in the filter to be represented by a single value.

7. A method as in claim 1, wherein said information about said differences includes information compensating for an aperture mixing effect caused by said different aperture.

8. A method as in claim 7, wherein said compensating comprises determining values at different scans in the first aperture, and averaging said values over said second aperture.

9. A method as in claim 8, wherein said optical filter assembly is substantially round, and said determining values comprises determining radial segment values.

10. A method as in claim 8, wherein said determining values comprises determining a first area of the segment encompassed by said first aperture, and determining a proportion of said first area within the second area represented by an area of said second aperture.

11. A method as in claim 8, wherein said compensating comprises determining an area of the first aperture and an area of the second aperture, and a ratio between said areas, and weighting a value of said first aperture according to said ratio.

12. A method, comprising:

forming a plurality of optical devices including optical filters with characteristics that vary along a gradient axis thereof;

calibrating said plurality of optical filters using a device that has a first aperture to determine color characteristics thereof and forming calibration data indicative of said calibrating;

compensating said calibration data for a difference between said first aperture, and a second aperture that will be

used to project light using said plurality of optical devices;
and

using the compensated calibration data to commanding
each of said plurality of optical devices to produce specified
colors.

13. A method as in claim 12, wherein said determining
differences comprises dividing a larger of the first and second
apertures into sections, determining individual characteristics
of each of said sections, and providing a weighted average of
said each of said sections.

14. A method as in claim 13, wherein said determining
differences determines said weighted average by determining an
area of each of said segments, determining a proportion that
each segment occupies of the total area, and using said
proportion to calculate the weighted average.

15. A method as in claim 12, wherein said determining
differences comprises dividing the larger aperture into radially
divided segments which are centered on a center of rotation of
the optical disk.

16. A method as in claim 12, wherein said second aperture is larger than said first aperture, and wherein said determining differences comprises determining an area of a light skin, dividing said aperture into a plurality of segments, and using said scan of said first aperture to characterize each of said segments.